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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,728	08/21/2003	Toyotaka Hirao	241563US3CONT	6197

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EXAMINER	
FORD, JOHN K	

ART UNIT	PAPER NUMBER
3753	

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)	
	10/644,728	HIRAO ET AL.	
	Examiner	Art Unit	
	FORD	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☑ Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☑ Claim(s) 1-7 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☑ Claim(s) 1-7 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☑ The drawing(s) filed on on filing is/are: a)☐ accepted or b)☑ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☑ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/21/2003 + at filing date
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawing corrections were required and approved in parent application SN 09/326,609. Please make them of record here.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Marked-up Drawings" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-6, drawn to a vehicular air conditioner apparatus, classified in class 165, subclass 201.

II. Claim 7, drawn to a method of positioning a damper, classified in class 237, subclass 12.3A.

The inventions are distinct, each from the other because:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practiced by hand or any of a multiplicity of different apparatuses having different types of dampers (e.g. the type claimed, explicitly, in applicant's claim 6 or the butterfly type disclosed by Nonoyama et al at 84).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JA 60-128012 or JA 10-226221 in view of Bednarck (4,821,792) and either JA 58-221714 or Nonoyama (Fig. 16A).

JA '012 shows an air conditioner with an indoor heat exchanger 4, fan 3, coolant heat exchanger 5, damper 7, and engine 12 with a cooling water circuit having a bypass valve 13b.

JA '221 shows an air conditioner with an indoor heat exchanger 7, fan 6, coolant heat exchanger 8, damper 10, and engine 20 with a cooling water circuit having a bypass valve 21.

Neither JA '012 nor JA '221 explicitly show a reversible heat pump connected to the indoor heat exchanger to permit rapid heating of the compartment when the coolant circulatory system is not yet warmed up, as is disclosed in Bednarck.

To attach a reversible heat pump to the indoor heat exchanger 4 of JA '012 or indoor heat exchanger 7 of JA '221 to advantageously permit quick heating would have been obvious to one of ordinary skill in the art.

Moreover JA '012 or JA '221 does not appear to explicitly teach opening their respective dampers 7 and 10 when the cooling mode is selected. It is submitted that such a mode of operation is the only reasonable one possible to attain maximum cooling and it is explicitly taught by JA '714 (see "Constitution" section of Abstract) and by Nonoyama Fig. 16 and the description thereof found in col. 23, line 26- col. 24, line 44 that is incorporated here by reference. Figure 16A (upper Figure) shows door 84 fully open and heater 86 not operating in the cooling mode. Note in col. 25, line 22, heat exchanger 86 can be a hot-water type.

In view of either JA '714 or Nonoyama (Fig. 16A) it would have been obvious to have fully opened the respective dampers 7 and 10 of JA '012 and JA '221 to permit maximum cooling to take place in the cooling mode.

Regarding claim 2, this is shown in both JA '012 and JA '221.

Regarding claim 3, this is explicitly taught by Bednarck at col. 3, lines 49-53.

Regarding claim 4, this taught by JA '012 and JA '221.

Regarding claim 5, this is taught by JA '221 at 22.

Regarding claim 6, this is taught by JA '012 and JA '221.

Regarding claim 7, this is taught by JA '714 and Nonoyama (Fig. 16A(a) and 16B(5)).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Williams.

Williams teaches a bypass valve (such as disclosed at 21 in JP '221) to improve performance. See Williams, col. 1, lines 9-22, incorporated here by reference. To have equipped the prior art JA '021 or JA '221 with a bypass valve to attain the advantages discussed by Williams in the aforementioned quoted section would have been obvious to one or ordinary skill.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Nakata or Isaji et al or Murayama.

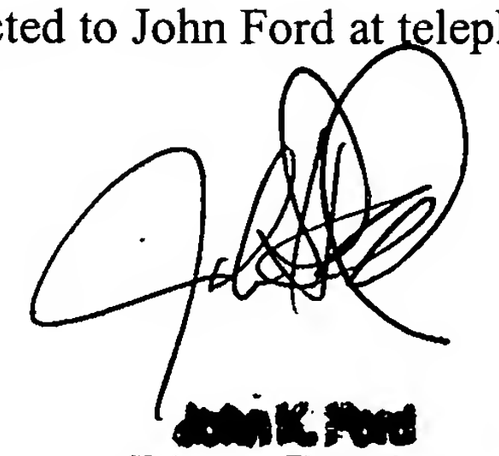
Nakata, Isaji and Murayama each teach variable compressor control to achieve better control over heating/cooling performance, something obvious to have done in the aforementioned prior art to achieve enhanced performance. The citation of three references to show the notoriety of a particular claim limitation is supported by the ~~flowing~~ following case law. In re Gorman, 18 USPQ2d 1885 (Fed. Cir. 1991), and In re GPAC, 35 USPQ2d 1116 (Fed. Cir. 1998).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 above, and further in view of Shaltis or Kiskis or Higashihara et al.

Shaltis, Kiskis and Higashihara each teaches using residual heating energy an obvious feature to have added to the prior art, to operate pump 22 of JP 10-226221 (for example) when the engine is inoperative. The citation of three references to show the notoriety of a particular

claim limitation is supported by the flowing case law: In re Gorman, 18 USPQ2d 1885 (Fed. Cir. 1991), and In re GPAC, 35 USPQ2d 1116 (Fed. Cir. 1998).

Any inquiry concerning this communication should be directed to John Ford at telephone number 703-308-2636.



John K. Ford
Primary Examiner

Ford/ek
08/06/04